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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR      | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|---------------------------|---------------------|------------------|
| 09/935,568      | 08/24/2001  | Stefan Paul Keller-Tuberg | Q64991              | 8849             |

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Washington, DC 20037-3213

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| EXAMINER |
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LEVITAN, DMITRY

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| ART UNIT | PAPER NUMBER |
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2616

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| MAIL DATE | DELIVERY MODE |
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12/11/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                               |  |  |
|------------------------------|-------------------------------|--|--|
| <b>Office Action Summary</b> | Application No.<br>09/935,568 | Applicant(s)<br>KELLER-TUBERG, STEFAN PAUL |  |
|                              | Examiner<br>Dmitry Levitan    | Art Unit<br>2616                           |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 13-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Amendment***

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

***Drawings***

2. Figures 1-4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 307, 603 and 604.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 807 on page 13.

5. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application.

Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

*Specification*

6. The disclosure is objected to, because abbreviations or acronyms ASAM, MBONE are cited throughout the specification without explanation. Applicant should provide a full explanation for the acronyms at least at their first occurrence in the specification.

*Claim Rejections - 35 USC § 112*

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 21-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claims 21 and 25 recite the limitation "the number" in lines 6. There is insufficient antecedent basis for these limitations in the claim.

Claims 22-24 and 26 are rejected as the claims depending on the rejected claims.

*Claim Rejections - 35 USC § 103*

10. Claims 13-26 (as best understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Hooper (US 5,671,225) in view of Rothschild (US 6,226,686).

Hooper substantially teaches the limitations of the claims:

A method for providing multicast services on a network comprising a multicast router and a plurality of end user communications equipments, comprising the steps of:

providing a point-to-multipoint connection between the multicast router and the plurality of users (server/router 200, comprising gateway 201 and network elements 202 and 203, streaming MPEG video from media stream port 240 to multiple clients 10 through unidirectional high-bandwidth path 104, utilizing multicasting 1:60-65, as shown on Fig. 2 and 3:14-4:7);

providing a separate bidirectional flow of control data between each of said end user communications equipments and said multicast router over separate point-to-point connections (providing low-bandwidth bi-directional communication path 105 for exchange of control information between the user and the server/router, separate from the data path 104, as shown on Fig. 2 and disclosed on 4:8-28);

replicating multicast information data from said multicast router to form a separate unidirectional multicast information flow for each of said end user communications equipments (implementing one directional path 104 from the media stream port 240 of the server/router 200 as a multicasting connection 1:60-65); and

transmitting replicated data in the separate flows of multicast information over respective unidirectional point-to-multipoint connections between said multicasting router and respective ones of said end user communications equipments (performing video streaming of MPEG video to the clients over multicasting connection, as described above).

Hooper does not teach using connecting the subscriber nodes with the multicasting router through an access node, wherein the access node is connected with a single, unidirectional

multicast information flow between said multicast router and said subscriber access node and the access node duplicates the data over a point-to-multipoint connection to the end users.

Rothschild teaches using connecting the subscriber nodes with the multicasting router through an access node, wherein the access node is connected with a single, unidirectional multicast information flow between said multicast router and said subscriber access node and the access node duplicates the data over a point-to-multipoint connection to the end users (inherent node of ATM network 110 to originate a point-to-multipoint connection 111, duplicating ATM cells and branching them out, because a node is essential to perform the operation of duplication and branching out in a network, connected with server 105 with a point-to-point link and with members of a message group, comprising of systems 112-115, through point-to-multipoint multicast connections 111, as shown on Fig. 8 and disclosed on 7:14-44.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using connecting the subscriber nodes with the multicasting router through an access node, wherein the access node is connected with a single, unidirectional multicast information flow between said multicast router and said subscriber access node and the access node duplicates the data over a point-to-multipoint connection to the end users of Rothschild to the system of Hooper to improve the system compatibility with existing IP and ATM networks and to connect the bi-directional channel of Hooper to the multicast router/server through an access node of Rothschild to simplify the system design by utilizing the access node for all users connections.

In addition, regarding claims 21 and 25, Rothschild teaches users to join and leave multicast groups, as they wish, therefore making a number of current users of the multicast group

smaller than the number of possible users, as disclosed on 4:35-5:10 and Hooper teaches using bi-directional line 105 for flows of control data, as disclosed on 4:7-24.

In addition, regarding claims 14-16, 18-20 and 22-26 Rothschild teaches point-to-point connection between the multicast server 105 and the access node of network 110 and point-to-multipoint connections between the access node and the users 112-115 as ATM connections to perform IP multicasting, as disclosed on 7:14-44 and using IP protocol to support multicasting, as disclosed on 4:35-60.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571) 272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Handwritten signature of Dmitry Levitan, consisting of stylized initials 'DL' followed by a full signature.

Dmitry Levitan  
Primary Examiner  
Art Unit 2616

**DMITRY LEVITAN  
PRIMARY EXAMINER**